distilled spirits plant, such alcoholic ingredients shall have the same meaning described herein to spirits, spirituous liquor, or distilled spirits.

This chapter. Title 27, Code of Federal Regulations, Chapter I (27 CFR Chapter I).

U.S.C. The United States Code.

Subpart C—Gauging Instruments

§ 30.21 Requirements.

(a) *General.* The proof of distilled spirits shall be determined by the use of gauging instruments as prescribed in this part.

(b) *Proprietors.* Proprietors shall use only accurate hydrometers and thermometers that show subdivisions or graduations of proof and temperature which are at least as delimitated as the instruments described in § 30.22.

(c) *ATF Officers.* ATF officers shall use only hydrometers and thermometers furnished by the Government. However, where this part requires the use of a specific gravity hydrometer, ATF officers shall use precision grade specific gravity hydrometers conforming to the provisions of § 30.24, furnished by the proprietor. However, the Director may authorize ATF officers to use other instruments approved by the Director as being equally satisfactory for determination of specific gravity and for gauging. From time to time ATF officers shall verify the accuracy of hydrometers and thermometers used by proprietors.

(Sec. 201, Pub. L. 85–859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

§ 30.22 Hydrometers and thermometers.

The hydrometers used are graduated to read the proof of aqueous alcoholic solutions at 60 degrees Fahrenheit; thus, they read, 0 for water, 100 for proof spirits, and 200 for absolute alcohol. Because of temperature-density relationships and the selection of 60 degrees Fahrenheit for reporting proof, the hydrometer readings will be less than the true percent of proof at temperatures below 60 degrees Fahrenheit and greater than the true percent of proof at temperatures above 60 degrees Fahrenheit. Hence, corrections are necessary for hydrometer readings at temperatures other than 60 degrees Fahrenheit. Precision hydrometers shall be used for gauging spirits. Hydrometers and thermometers shall be used and the true percent of proof shall be determined in accordance with § 30.31. Hydrometers are designated by letter according to range of proof and are provided in ranges and subdivisions of stems as follows:

Precision	Range	Subdivision
F	0 to 20	0.2°
G	20 to 40	0.2°
H	40 to 60	0.2°
I	60 to 80	0.2°
K	75 to 95	0.2°
L	90 to 110	0.2°
M	105 to 125	0.2°
N	125 to 145	0.2°
P	145 to 165	0.2°
Q	165 to 185	0.2°
R	185 to 206	0.2°

Thermometers are designated by type according to range of degrees Fahrenheit and are provided in ranges and subdivisions of degrees as follows:

Type	Range	Subdivision
Pencil type	10° to 100°	1°
V-back	10° to 100°	1°
Glass shell (earlier model)	40° to 100°	½°
Glass shell (later model)	40° to 100°	¼°

(Sec. 201, Pub. L. 85–859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

[T.D. ATF–198, 50 FR 8535, Mar. 1, 1985, as amended by T.D. ATF–381, 61 FR 37003, July 16, 1996]

§ 30.23 Use of precision hydrometers and thermometers.

Care should be exercised to obtain accurate hydrometer and thermometer readings. In order to accomplish this result, the following precautions should be observed. Bulk spirits should be thoroughly agitated so that the test samples will be representative of the entire quantity. The hydrometers should be kept clean and free of any oily substance. Immediately before readings are taken, the glass cylinder containing the thermometer should be rinsed several times with the spirits which are to be gauged so as to bring both the cylinder and the thermometer to the temperature of the spirits (if time permits, it is desirable to bring both the spirits and the instruments to